

# BEST AVAILABLE COPY

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number  
**WO 2004/087751 A1**

(51) International Patent Classification<sup>7</sup>: C07K 14/435,  
C12N 15/12, 15/63, 15/74, 15/79, A01K 67/027, A61K  
38/17, 48/00, C12Q 1/68, G01N 33/53

Tübingen, Calwerstrasse 7, 72076 Tübingen (DE). WALL-  
WIENER, Diethelm [DE/DE]; Universitäts-Frauenklinik  
Tübingen, Calwerstrasse 7, 72076 Tübingen (DE).

(21) International Application Number:  
PCT/EP2004/003538

(74) Agent: SCHÜSSLER, Andrea; PAe Huber & Schüssler,  
Truderinger Strasse 246, 81825 Munich (DE).

(22) International Filing Date: 2 April 2004 (02.04.2004)

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03007680.6 3 April 2003 (03.04.2003) EP

(71) Applicants (*for all designated States except US*):  
DEUTSCHES KREBSFORSCHUNGSZENTRUM  
STIFTUNG DES ÖFFENTLICHEN RECHTS  
[DE/DE]; Im Neuenheimer Feld 280, 69120 Heidelberg (DE). RUPRECHT-KARLS-UNIVERSITÄT  
HEIDELBERG [DE/DE]; Im Neuenheimer Feld 305,  
69120 Heidelberg (DE).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): PONSTINGL, Herwig [AT/DE]; Quinckestrasse 44a, 69120 Heidelberg (DE). ZIMMERMANN, Hans-Peter [DE/DE]; H.-Schwegler-Strasse 3, 69214 Heidelberg (DE). MOLDENHAUER, Gerhard [DE/DE]; Kepplerstrasse 22, 69120 Heidelberg (DE). MARMÉ, Alexander [DE/DE]; Friedrich-Ebert-Anlage 21, 69117 Heidelberg (DE). BASTERT, Gunther [DE/DE]; Universitäts-Frauenklinik Heidelberg, Vossstrasse 9, 69115 Heidelberg (DE). KUREK, Rafael [DE/DE]; Universitäts-Frauenklinik

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



**WO 2004/087751 A1**

(54) Title: DYSTROPHIN-RELATED PROTEIN (DROP1), A MARKER FOR CARCINOMAS

(57) Abstract: Described is a novel marker protein associated with epithelial tumors, e.g., ovarian, mammary, stomach, kidney, thyroid and lung carcinomas, Drop1, a dystrophin-related protein as well as a nucleic acid molecule encoding Drop1. Furthermore, various diagnostic and therapeutic uses based on the finding that the expression of Drop1 is downregulated in epithelial tumors are described.